

DIGITAL AIDED GUIDE FOR FATHERS-TO-BE

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Abstract: The project “DAD - Digital aided guide for fathers-to-be” (Co46244) is co-financed by the European Union within the e-TEN programme.

The digital-aided guide for fathers-to-be is a free online service which deals in a playful way with the basics of baby care, health and safety. It is exclusively developed for men's needs and aims at motivating fathers-to-be to actively participate in infant care.

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1. AIM OF THE PROJECT

Micro census studies in Europe prove that baby and infant care do not only concern a large part of mankind in private spheres but also have far-reaching implications on politics and economy. This seems especially obvious when taking into account the decreasing fertility rate and resulting demographic consequences. Low female employment rates, the economic and legal burdens involved in evolving more equal parental leave, as well as social neglect of the father's role in the education of small children led to initiatives for development of a baby-care guide customized to men's needs.

The DAD Project provides fathers-to-be with a guide on baby-care basics, including the consideration of a baby's well-being, health and child safety issues. The guide is based on Flash technology and can be viewed with a Flash player, available in most common browsers. The playful content of the guide should facilitate its reception and motivate men to become active.

The main objectives of the DAD Project are:

- 1 Develop localised versions of the prototype
- 2 Validate the service's deployment capacities in different local markets
- 3 Build up a network of national experts and online helpdesks for users

- 4 Motivate men to actively participate in baby health care

- 5 Provide incentives for the reconsideration of parental leave legislation in Europe

The service is meant to raise men's social awareness as well as provide them with didactically and medically sound information on child health care. By providing the guide free, socially or geographically disadvantaged people are not excluded from the service. Additional to the guide, an online platform offering expert consultation will be established in the participating countries.

The digital aided guide for fathers-to-be is a free and anonymous online service for fathers-to-be and all other interested persons. It is the only service, dealing with basic baby-care and -health issues, customized for men's needs exclusively. The service is successfully implemented in the Austrian market - 150.000 users since its national launch in 2004. With the financial contribution of the EC's eTEN Programme, the scope of the DAD - guide is broadened at a European level.

The DAD project is a Market Validation Project under the coordination of Webducation Austria and is currently constituted by a very heterogeneous consortium from Austria, Czech Republic, The Netherlands, Poland and Romania.

Based on the fine experiences with DAD in Austria, the overall aim of the project, starting in June 2007, is to evaluate the capacities of the service deployment to other European Markets. The localised versions of the service will be installed in the partner countries Austria, Czech Republic, Netherlands, Poland & Romania. A comprehensive evaluation of the service in each market will take place over the projects duration of 18 months. In this regard, the acceptance of the service by users is validated as well as an evaluation of the sponsors' side.

After the successful implementation of the service in the participating countries, the goal of the DAD Project is to present a Deployment Plan and Business Strategy which pave the way for a European-wide deployment of the service.

2. BACKGROUND OF THE SERVICE

In the last years the role of men in the family and the father role-model in general changed in relation to the emancipation of women and the increased occupational activity of women. The incentive for developing this kind of service for fathers-to-be was basically due to the fact that no comparable service, targeting fathers, is available. In contrast many trainings, aids and support for mothers-to-be are offered, while the allocation of parental roles is going through a transition. More and more families share the parental leave and fathers are therefore forced to deal with baby care in a sooner stage as they were used in prior times.

On the other hand, information dealing with all aspects of infant care is still mainly restricted to mothers. During birth preparation courses they learn copying strategies for childbirth as well as first baby care basics. Fathers are usually confronted with babies, when the child is already born. As a consequence the adaptation to the new circumstances and the preparation phase is much shorter, and they have to adjust themselves and train their baby care skills in a much shorter time.

In order to cope with the challenges of active child and baby care, new skills have to be learned. Another aspect is that mothers usually have more time during their pregnancy to prepare for child care whilst men are usually confronted with their new role when the child is born.

3. THE SERVICE PROTOTYPE

Considering, these points, the digital aided guide for father-to-be - original title: "Hurra, ich werde Vater! Der digitale Leitfaden für werdende Väter" (Yippee, I am becoming father! The digital guide for fathers to be) - was developed by *Webducation* who is the coordinator of the project and *interactive video*

productions gnbr who is licensee and provider of the service.

The aim of the guide is to support men in their father role by giving concrete action guidelines and by helping them to overcome potential insecurities in baby care. This free service is provided as online application or alternatively as CD-Rom which can be picked up at practitioners and health care institutions. The two different formats of the service assure the accessibility to the service independent from internet access and shall therefore decrease potential accessibility burdens. Secondly, no social classes are excluded as the service is free for the users.

3.1 Content of the guide.

The content of the guide was developed in cooperation with experienced pedagogues and medical doctors.

The modules of DAD deal in a playful but educational funded manner with the following issues of baby care:

1. How do I properly carry my child?
2. What do I have to mind when swaddling my child?
3. How do I prepare baby's bottle?
4. What do I do when flatulencies occur?
5. How do I properly dress my child?
6. What do I have to have in regarding transport?
7. How do I properly bathe my child?
8. What is the best way for my child to fall asleep?
9. When does my child have to see a doctor?

With the help of the didactically valuable source of information offered by the digital guide fathers can contribute to the health of their newborn. The technological as well as the economical aspects of the project constitute a success and a valuable service for the general public.

3.2 Media didactical approach.

During the production phase special attention was paid to didactics concerning the user as well as the media. The highest possible vividness was obtained with methods used in the interactive video. A virtual coach - Konrad Koach ® - accompanies the training. Short insistent video clips were produced to support the different learning steps. These video clips do not simply run through - they stop, call attention to special facts or sources of error, and motivate the user to active participation. Extended information is supplied in specific text modules and detailed descriptions.

The playful occupation with the topic is intended to reduce inhibitions which fathers may have in dealing with their newborn particularly in the early phase. The virtual vividness of the digital guide is more

supportive than written words as it not only explains the father-child interaction in different situations but also demonstrates their behaviour.

The “trick” of giving support in *practical situations* reduces possible *emotional inhibitions*: some researchers point out the fact that men are more likely to express emotions through actions than through words. Seeing how a father approaches his child in a joyful way, fosters, feeds and bathes it and even changes its diapers, demonstrates not only how it is done but also that it is rewarding and fun. One essential part of the service evaluation focuses on the acceptance of the service among the target group. For this purpose a standardised questionnaire, comprising all relevant usability aspects is developed, distributed in all test sites and evaluated in the work package.

3.3 Structure of the digital guide.

The “TV set”

Film scenes portray the learning content in videos. They appear completely integrated in the learning environment inside the stylized TV. Some information is better presented in form of an animation. These animations and simulations are displayed on a TV screen.

Unlike a real TV presentation, the sequences are interactive. The users are activated; they have the possibility to answer questions and thus can learn with great ease.

The stage

Besides the TV Conrad Coach® becomes active. He comments on the story, he emphasizes interesting facts, and warns decidedly against dangers.

Catchwords, mnemonic phrases, concise design are presented on stage.

Recurring graphic elements enable special learning effects through subconscious association with the message to learn. Charts, checklists, addresses, names, links are inserted.

Additional detailed text / Multiple choice test

These text modules make it possible to present facts in greater detail than the compressed and concise multimedia sequences. These texts encourage the ambitious users to further their knowledge and deepen their studies. There is a multiple choice test for self control purpose at the end of each chapter. All tests together can be done separately too.

Multimedia Authoring

The whole guide is developed with Macromedia Flash MX2004 and will be adapted using the current version 8, respectively upcoming version 9. All data inputs are displayed with flash player in a coherent surface.

The Internet version of DAD needs the Macromedia Flash player version 7 installed. It is also possible to export compatible to version 6 of the player. The

current version is 9. The flash player is the most common plug-in for Internet browsers with a pervasiveness of over 95 %. The respective answer in the survey of the target group will tell which version will be the adequate one for the target group.

Enhancing the guide with WEB 2.0-features like blog, video-chat in the ID phase, most likely Flex 2.0 and Action Script 3 will be used.

All input files are seamlessly integrated with Macromedia Flash. The video files are fully embedded into timeline, because they have to run synchronous with the sound layer for the spoken words of the virtual trainer Conrad Coach ® and additional related animated information. Animations of Design and/or photos are generated within Flash.

Interactive parts such as tests are also done within Flash. The programming is done with Action Script commands.

3.4 Type of Data.

Video

The video files are recorded digitally with DV CAM and Digibeta cameras. The files are being cut with AVID Xpress video editing system or Apple Final Cut Pro, compressed and converted to FLV (Flash Video Format) with Sorenson Squeeze. These .flv-files are directly imported into Flash without recompressing.

Audio

Audio recordings from Audio studios are digitally stored as .wav or .aif Files, cut with Quicktime Pro or Digidesign Protools and compressed as mp3-files.

Graphic

Photos and design:

Photos are stored as jpg files and edited with Adobe Photoshop CS and CS2. Vector based Design are edited with Adobe Illustrator or directly in Macromedia Flash 8. Some of the Design are even completely generated with Macromedia Flash, using WACOM graphic tablets.

XML

The data for questions and answers are stored as XML-files. So generating tests in other languages is easily done.

PDF

Text in the area for additional downloads is stored as PDF in order to make it easy to read and print, because the achieved Adobe Reader is free and very popular.

3.5 Architecture of Content.

Main file

The architecture consists of one main file that sources the navigation and the functions for controlling the content. These functions are programmed with the Flash built in programming language "Action script".

Chapters

The chapters are all stored in separate flash files (.fla) in order to be flexible in preloading and producing.

Texts

Texts displayed inside the learning programme are being stored in XML format and text files. They can more easily be changed than animations, Design and movies because the flash file has not to be changed in order to display another text. The XML are generated by a MySQL database.

Link section

The Link section is a standard html-file referring to external internet pages. For better maintenance by the partners it will be linked to a MySQL database.

3.6 Architecture of Marketing, Collaboration and Communication Tools and Project Homepage.

Contact and Marketing Database

The database is now a Filemaker Pro database. It will be programmed with MySQL and PHP in order to communicate with communication and collaboration platforms that are open source based.

Collaboration and Communication Tool

For the duration of the project there will be a platform strictly for the partners. It will be programmed an open source tool, taking into considerations Web 2.0 features like blogging for easy and state-of-the-art communication.

Project Homepage

The project homepage will provide information about the partners, the aim of the project and the possibilities and advantages for sponsors. It will be based on an open source CMS (Content management system) and ideally taking advantage of Web 2.0 features. Project Homepage and Collaboration/Communication Tools will be part of the same CMS system. Ideally the Contact and Marketing Database can be integrated seamlessly into this system.

3.7 Distribution of Content.

The Internet platform

www.junge-vaeter.at is a standard Internet site based on HTML.

Hardware required

The whole platform runs as a standard web server configuration: either on Windows, Linux, Unix or Macintosh Servers.

Server Software

Any standard web server software can provide the content. There is no specific streaming service needed as all is packed into swf files that are transported via HTTP.

The platform is as scaleable as the web server that is hosting it.

A MySQL database and PHP is running on the server.

The service is based on HTTP only. There is no executable file to be downloaded and no specific ports for the user or the server to be opened.

Security Issues

There are no special security issues, because there is no transfer of personal data, no storage of personal data and no payment. The whole digital guide is free for use to everybody. Standard security tasks of the Internet provider will ensure that the site is not being attacked.

3.8 Technical Adaptations

Main file

Minor adaptations are needed to import text hints from XML generated by database.

Chapters

Video files, animations, graphical information:

There will be partly new video files concerning local interview partners and locally different content. There also will be different animations and Design to visualise specific local content.

Texts in database

Text will be multilingual stored in a database, which ensures easy maintenance in order to set up the localised versions.

The database will be programmed with MySQL and php and will communicate with the flash file via XML.

4. PROJECT OUTCOMES

- Translation of the service in the respective languages (Part of WP2 Adaptation)
- Identified distribution channels and established contacts in the various countries on three levels (General Commitment, Commitment for ID phase, Contracts), (Part of WP4 Market Analysis and Deployment)
- Service test runs in the various countries (Part of WP3 Evaluation)
- Results of target group analysis and usability studies (Part of WP3 Evaluation)

- Draft deployment report and incorporating the results of the reviews and interviews (Part of WP4 Market Analysis and Deployment)
- Outlined actions required for the deployment in the target countries (Part of WP4 Market Analysis and Deployment)
- Draft and final report including all the results, enumerating the barriers and challenges for deployment including validation of the conditions that have to be fulfilled for a sustainable deployment. (Part of WP5 Dissemination)
- An investment plan as part of the reporting (Part of WP4 Market Analysis and Deployment)
- User satisfaction: At least 70% positive judgments in the usability tests among the different probands.
- Elimination of potential usability problems. Users should find the information they look for.

5. CONCLUSIONS

The DAD Project serves the European inclusion goal as it provides a free e-Service to all men, independent from their social status or origin. It concentrates on one of the most vulnerable groups – babies – and highlights the importance of the health care of the infants. The user gets information on how to deal with child safety aspects and is informed on the risks associated to the wrong use of baby care products. In this sense, the project also addresses important product safety and injury prevention policy aspects.

The Austrian Prototype of the service was introduced to the market in 2004 on the ‘International Women’s day’. Since then 150.000 users have profited from the service.

The development of this online service is estimated to have a major impact upon the European society as it aims both at encouraging man to become involved in raising the child, as well as providing correct and sound didactic and medical information in child care. Moreover, the project is expected to be a success in Romania where tradition usually states that baby care is the responsibility of mothers.